

# USER INSTRUCTION MANUAL

# Energy Absorbing Lanyard WGF611 WGF622

Complies with EN355, EN354, EN362 SS528:Part2 and Part5 ISO 10333-2 and 10333-5

## PDS International Pte Ltd

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# GENERAL INFORMATION AND INSTRUCTION FOR USE

- The energy absorber incorporated in a lanyard has been made in accordance with EN355 and SS528:Part2 which has maximum free fall distance 4.0m and the arrest force generated shall be less than 6kN.
- Choose suitable anchorage point away from the degree of angle greater than 30degree to avoid any additional damage may be caused by any pendulum action.
- 3. Ensure that sufficient clearances between the anchorage point & the ground as per figure shown in the energy absorber at the back of it are provided to allow an arrested fall to take place without the user colliding the ground.
- The energy absorbing lanyard complies with EN355, EN354, EN362, SS528:Part 2 and Part 5, shall be a personal use of a total mass not exceeding 100kg.
- 5. Before use of the system, consideration must be given as to how any necessary rescue could be achieved.
- While using, arrangements should be made to protect the lanyards against damages caused by bumps, cutting, abrasion, UV degradation and chemical attacks.
- 7. The energy absorbing lanyard that has withstood a fall or appears doubtful on visual examination must be immediately withdrawn from service because it is not designed to withstand more than one fall.
- 8. This equipment must be used with a connector according to EN362 and SS528:Part 5 to be connected with the attachment point for fall protection of full body harness.
- Before each use, a close visual examination should be made of each and every element of the system to make sure the system is in perfect condition.
- 10. Make sure to keep equipment control card on hand, fill it in and note the periodic checks for the safety.
- 11. The user must check medical conditions could affect the safety of users in normal and emergency use.
- 12. Any alterations or additions must not be made to the equipment without the manufacturer's prior consent.
- Any care must be taken to ensure that this energy absorbing lanyards perform properly when assembled into a Personal Fall Arrest System (PFAS).
- 14. Don't wrap any lanyards around structures that are of small diameter or sharp edge and attach it back on itself to avoid any damage on the surface of lanyard.
- 15. Any lanyard without energy absorber is strictly prohibited to be used for fall protection to prevent causing any danger or injury in an arrested fall.
- 16. This equipment shall not be used outside its limitations, or any purpose other than for which it is intended.
- 17. This equipment are acceptable to be used together with a full body harness which is the only acceptable body holding device to be employed in a PFAS.
- 18. Striking objects horizontally due to the pendulum effect of a swing fall may cause serious injury or death.
- 19. Always attach an unused lanyard to a lanyard keeper when not in use. Never attach the unused lanyard to the harness at any other location.
- 20. The regulations included herein are for reference only. They are not all-inclusive and not intended to replace a Competent Person's judgement or knowledge of federal or state standards.

- 21. The analysis of the workplace must anticipate where workers will be performing tasks, the routes they will take to reach their tasks, and the potential/existing exposure to fall hazards.
- Fall protection equipment must be chosen by a Competent Person.
   Selections must account for all potential hazardous workplace conditions.
- All fall protection equipment should be purchased in a new and unused condition.
- 24. Select and install fall protection systems under the supervision of a Competent Person. Fall protection systems must be used in a compliant manner.
- 25. Fall protection systems must be designed in compliance with all federal, state, and local safety regulations.
- 26. Forces applied to anchors must be calculated by a Competent Person.
- 27. Harnesses and connectors selected must be compliant with manufacturer's instructions and must be of compatible size and configuration.
- 28. A pre-planned rescue procedure is required as part of a complete fall protection program. The rescue plan must be project specific. The rescue plan must either allow for employees to rescue themselves or provide an alternative means for their prompt rescue. Store rescue equipment in an easily accessible and clearly marked area.
- 29. A Competent Person must train Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment. Training must include the correct use of personal fall arrest systems, the ability to recognize fall hazards, and how to reduce the dangers of fall hazards.
- NEVER use any fall protection equipment to hang, lift, support, or hoist tools or equipment unless that equipment is explicitly certified for such use.
- 31. Physical harm may still occur even if fall safety equipment functions correctly.
- 32. Sustained post-fall suspension may result in serious injury or death.

EU Declaration of Conformity can be found at the following link: http://www.safety.com.sg/resources/8

#### **DONNING**

This is made of polyester kernmantle rope designed to absorb the kinetic energy created during a fall. In order to avoid any mis-use of the equipment and ensure your safety, the following instructions for use must be read carefully and complied strictly.

You can put on the energy absorbing lanyard in the following order:

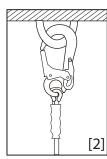
- Attach the energy absorber's connector to the dorsal D-Ring or frontal attachment point of full body harness. (conformed to EN361 and SS528:Part 1)
- [2]. Connect the lanyard's another end connector to the structural anchorage point of resistance min. 12kN (conformed to EN795:2012) placed above the user.

# **IMPORTANT**

The shape of the structural anchorage point shall not let self-acting disconnection of the device.







# LIMITATIONS OF USE

- This energy absorbing lanyards require space minimum 6.35m of free fall with a maximum capacity up to 100 kg including clothing, tools, etc.
- 2. Energy absorbing lanyards must be used with a full body harness and designed for a single user.
- Do not repair equipment on-site unless explicitly permitted by manufacturer.
- All scaffold hooks and karabiners must be self-closing and must never be connected to each other.
- Allowable range of individual worker weight limit (including all equipment) is 100kg, unless explicitly stated otherwise.

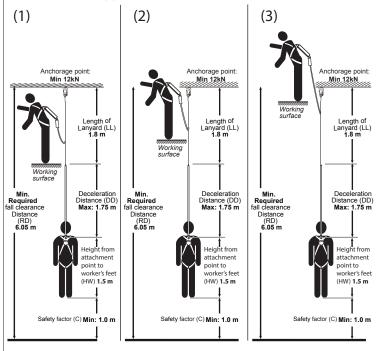
## ANCHORAGE REQUIREMENTS

- All anchorages to which the Personal Energy Absorbers and Energy Absorbing Lanyards attach must meet the requirements of EN795:2012.
- 2. Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 12kN per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, under the supervision of a qualified person.
- Anchorages should be located as vertically as possible above the user's head and be positioned as not to exceed the maximum allowable free fall for the system.

# FALL CLEARANCE/ CLEAR FALL DISTANCE

# REQUIRED FREE DISTANCE

- Free distance below working surface depending on location of anchorage point. See Illustration (1) and (2).
- 2. Free distance below working surface must be 6.05meters minimum. See Illustration (3).



#### RD = LL + DD + HW + C

Remark: Illustrations not to scale

# SWING FALL

To minimize the possibility of a swing fall, work as directly under the anchorage connector as possible. Striking objects horizontally, due to the pendulum effect, may cause serious injury. Swing falls also increase the vertical fall distance of a worker, compared to a fall directly below the anchorage connector. Swing falls may be reduced by using overhead anchorage connectors that move with the worker.

# **MARNING**

Workers accessing areas greater than 30° off-plumb from overhead anchorage are at a higher risk for severe injury. Striking objects horizontally due to the pendulum effect of a swing fall may cause serious injury or death.

# Swing Fall WARNING: Workers accessing areas greater than 30° off plumb from overhead anchorage are at a higher risk for severe injury.

# **TRAINING**

Employers are responsible for providing training to any employee who may be exposed to fall hazards. Training will enable an employee to recognize and reduce fall hazards. Training must be conducted by a Competent or Qualified Person. Trainer and trainees must not be exposed to fall hazards during the training course.

# INSPECTION

- All snap hooks and karabiners on product must be able to self-close and lock.
- All hardware must be free of corrosion, chemical attack, alteration, excessive heating, wear cracks, sharp edges, deformation, corrosion, or any evidence of defect.
- 3. Bend a portion of the rope 15-20 cm into an upside-down 'U' shape. Continue along all webbing inspecting for tears, cuts, fraying, abrasion, discoloration, burns, holes, mold, pulled or broken stitches, or other signs of wear and damage. Sewn terminations must be secure, complete, and not visibly damaged.
- 4. All markings must be legible and attached to the product.
- All hardware must be free of cracks, sharp edges, deformation, corrosion, or any evidence of defect.

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# Basic Rules of Using The Snap Hook or Karabiner

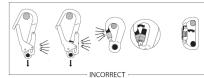
- Snap/scaffold hook and karabiner use in these energy absorbing lanyards marked with the EN362 standard are self-closing can withstand minimum static strength 20kN.
- Before each use, a close visual examination of the snap hook components (body, gate, locking gear) must be carried out in respect of mechanical, chemical and thermal defects. The examination must be done by a person who is going to use it. In the case of any defect, doubt of correct condition of the unit, do not use it.
- 3. During use the snap hook must be protected from any contact with acids, solvents, basics, open fire, hot metal drops and sharp edges. If you have any doubts about the conditions where the snap hook will be used, consult from the manufacturer.
- Before using the fall arrest system, the rescue operation must be introduced to avoid any danger that can happen during the use of the equipment.
- The shape of the structural anchor point should not let self-acting snap hook disconnection. See drawings





It is necessary to protect the snap hook gate with locking gear.
 See drawing.





- 7. The length of the snap hook should be taken into account when used in any fall arrest system as it will influence the length of a fall.
- It must be taken into consideration that some situations during use may reduce the strength of the snap hook, e.g. connecting to wide straps.

# MAINTAINANCE AND STORAGE

Proper maintenance and storage of your harness are necessary to ensure integrity of the component parts and therefore the user's safety. Comply strictly with the following instructions.

- 1. This equipment shall be inspected at least once a year by a competent person authorized by the manufacturer.
- Make sure to fill in the EQUIPMENT CONTROL CARD provided and keeps it on hand, and notes the periodic checks for your safety.
- Whenever necessary, cleaning should be carried out using a brush (not wire brush). When the equipment becomes wet either when in use or as a result of cleaning, it should be allowed to dry naturally, away from an open fire or any other source of heat.
- For metal-ware hooks and rope grabs, inspect for damage and signs
  of distortion. Check for mechanical integrity and function. Check for
  worn, weak or damaged springs.
- 5. The equipment should be looked after and stored correctly when not in use and should not be left lying around the work site. It should be kept away from sharp objects and harmful substances and stored in a cool, dry place free from direct sunlight.
- 6. Equipment must be inspected for defects including (but not limited to): the absence of required labels or markings, improper form/fit/function, evidence of cracks, sharp edges, deformation, corrosion, excessive heating, alteration, excessive wear, fraying, knotting, abrasion, and absence of parts. Equipment that fails inspection in any way must immediately be removed from use.
- 7. Do not store in areas where damage from environmental factors such as heat, light, excessive moisture, oil, chemicals and their vapors, or other degrading elements may be present.
- Do not store damaged equipment or equipment in need of maintenance in the same area as product approved for use. Equipment must be cleaned and dried prior to storage.
- Equipment that has been stored for an extended period must be inspected as described in these User Instructions prior to use.

## **WARNING:**

Repairs to this equipment to be carried out only by the manufacturer or by a competent person authorized by the manufacturer. This equipment should be used together with full body harness only by a person properly trained for working at heights. Any equipment involved in a fall arrest event must not be re-used until such equipment has been inspected by a competent inspector from the manufacturer or by an approved specialist. The shock absorber must not be replaced within its protective covering.

If equipment fails inspection IMMEDIATELY REMOVE FROM SERVICE. User must inspect prior to EACH use.

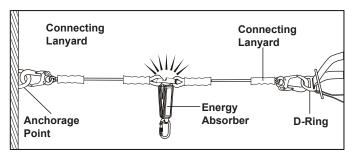
Product lifespan is 5 years from manufacturing date and as long as it passes pre-use and Competent Person inspections.

# **SPECIAL WARNING for WGF622**

This energy absorber with double lanyard is designed to provide added protection while the user moves at work up and down or sideways. In vertical movement on a ladder, the two lanyards are hooked on a same rung while working and when the user needs to move to change the position of work the lanyards are unhooked off the rung and hooked on another rung, one after another, so that one lanyard should always stay hooked on the rung, thus the user is always assured of keeping himself from the risk of falling off the ladder during the movement.

This lanyard may also be used to give the user increased safety at work by securing both lanyards to two different anchorage points as available, when it is deemed necessary to use the two anchorage points.

- The user must be careful not to connect any of the two hooks with the harness; the harness must always be connected with the karabiner at the end of the shock absorber.
- The user must always make sure that one of the two lanyards always stay hooked to an anchorage point.



# **ENERGY ABSORBING LANYARD DESCRIPTION**

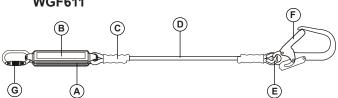
A - Energy absorber D - Connecting lanyard B - Identity label

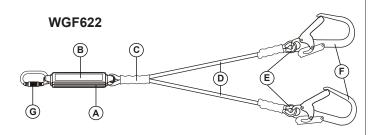
C - Plastic sleeve

G - Karabiner

E - Thimble F - Scaffold hook







# CONTENT OF THE DEVICE IDENTITY LABEL

I – Manufacturer trademark

II – Reference device style/number IV - Material the device is made of

III - Type of fall arrest device

V – Manufacturing serial number VI – Month/year of the device is manufactured

VII - Caution: read the instruction manual

VIII – Standards which the fall-arrest device is compliance with

IX – CE marking and notified body no# controlling mfg of the equipment

X – Device bar code reference



# **EQUIPMENT CONTROL CARD**

Туре		ENERGY ABSORBING LANYARD WGF611, WGF622						
Serial no.				Mfg. o	date			
Purchased date								
First service date								
User's name								
This Energy Absorbing Lanyard can be used with Full Body Harness								
Date	Pass /Fail	Со	mments/Actions		ns	Next Inspection		Signature